

Claims

What is claimed is:

5. 1. A method for controlling access to information, the method comprising the steps of:

maintaining, for a given entity controlling access to the information, a contact list comprising information identifying one or more other entities which have attempted to communicate with the given entity; and

10 utilizing the contact list in conjunction with a revocation list associated with the given entity to determine which of at least a subset of the one or more other entities are authorized to communicate with the given entity.

15 2. The method of claim 1 wherein the given entity and at least a subset of the one or more other entities each comprise a consumer electronics device.

20 3. The method of claim 1 wherein the maintaining and utilizing steps are implemented in an access control system associated with the given entity.

4. The method of claim 3 wherein the revocation list comprises a local revocation list stored in the access control system.

25 5. The method of claim 1 wherein the contact list comprises a plurality of entries, each entry including at least an identifier of

a particular one of the other entities and a corresponding revocation flag indicating whether authorization of the particular entity has been revoked.

5 6. The method of claim 5 further including the step of updating the contact list after a modification of the revocation list.

10 7. The method of claim 6 wherein the step of updating the contact list after a modification of the revocation list further includes the steps of:

identifying all of the entities in the contact list that do not have their corresponding revocation flag set; and

15 determining, for each of the entities identified as being on the contact list but not having a set revocation flag, whether that entity is on the modified local revocation list, and if such an entity is determined to be on the modified local revocation list, setting its revocation flag in the contact list.

20 8. The method of claim 5 further including the step of updating the contact list if a new entity not already included in the contact list attempts to communicate with the given entity.

25 9. The method of claim 8 wherein the step of updating the contact list if a new entity not already included in the contact list attempts to communicate with the given entity further includes the steps of:

storing in the contact list an entity identifier for the new entity if there is sufficient space available in the contact list; and determining if the new entity is on the revocation list, and if it is, setting the corresponding revocation flag for the new entity in the contact list.

10. The method of claim 9 further including the step of selecting a particular entry of the contact list for removal from the contact list if there is not sufficient space available in the contact list for the new entity.

11. The method of claim 10 wherein the selecting step is implemented using a random or pseudo-random selection process.

12. The method of claim 5 wherein the contact list is configured such that the revocation flag of a particular entry may not be cleared once that flag has been set as long as that entry remains in the contact list.

13. The method of claim 1 further including the step of periodically generating a digital signature for at least a portion of the contact list.

14. The method of claim 13 further including the step of updating the digital signature each time the contact list is updated.

15. The method of claim 1 wherein each of at least a subset of the other entities stores a contact list having entries corresponding to entities which have attempted to communicate with those other entities.

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16. An apparatus for controlling access to information, the apparatus comprising:

a processor-based device for controlling access to the information, wherein the processor-based device is operative to maintain a contact list comprising information identifying one or more other entities which have attempted to communicate with the processor-based device, and to utilize the contact list in conjunction with a revocation list associated with the given entity to determine which of at least a subset of the one or more other entities are authorized to communicate with the processor-based device.

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17. An article of manufacture comprising a machine-readable storage medium containing one or more software programs for use in controlling access to information, wherein the programs when executed implement the steps of:

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maintaining, for a given entity controlling access to the information, a contact list comprising information identifying one or more other entities which have attempted to communicate with the given entity; and

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utilizing the contact list in conjunction with a revocation list associated with the given entity to determine which of at least

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a subset of the one or more other entities are authorized to communicate with the given entity.

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